DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/07/2009 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> A person shall be entitled to a patent unless –

Claims 1,3,7,8,11,12,15,17-20 and 25 rejected under 35 U.S.C. 102(b) as being anticipated by Kawasaki (US 7,296,795).

Referring to claim 1,11,12,15 and 25. Kawasaki discloses an apparatus for handling sheets (Figure 17), comprising:

a sheet transfer member being movable (1d), and having a transfer surface (surface of roller 1d) contactable with one of the sheets (P) so that the one of the sheets (P) is transferred by the sheet transfer member (1d),

a sheet supporting surface area (surface of member 4) being contactable with the one of the sheet (P) transferred by the sheet transfer member (1d), said sheet supporting surface (4) extending to be contactable with the one of the sheet (P) between the transfer surface (surface of roller 1d) and the information reading point (between member 20 and 4), and

an information reader (3; Figure 17) arranged to face to the one of the sheet (P) transferred by the sheet transfer member (1d) and having in an information reading range (range of sensor 3) including an information reading point (position of the sensor), in which reading range an information is securely readable from the one of the sheets (P; Figure 17),

wherein as seen in a view direction perpendicular to a thickness direction of the one of the sheets (P) and a transferred direction of the one of the sheets (P) transferred by the sheet transfer member (1d), a tangential line of a boundary point of the transfer surface (surface of roller 1d) of the sheet transfer member (1d) from which boundary point the one of the sheets starts to separate away from the transfer surface extends in a side area of an imaginary straight line passing the information reading point (position of the sensor) and the boundary point,

which side area including the sheet supporting surface area (surface of roller 1d), and

wherein the tangential line intersects the sheet supporting surface area (4) as seen in the view direction to press the one of the sheets against the sheet supporting surface area (surface of member 4).

Referring to claim 3. Kawasaki discloses an apparatus for handling sheets (Figure 17), wherein the sheet supporting surface area (surface of member 4) extends to guide therealong to the information reading range (center of member 4) the one of the sheets (P) transferred by the sheet transfer member (1d).

Referring to claim 6. Kawasaki discloses an apparatus for handling sheets (Figure 17), wherein the tangential line is prevented from extending parallel to the imaginary straight line (see Figure 17).

Referring to claims 7 and 17. Kawasaki discloses an apparatus for handling sheets (Figure 17), further comprising a supplemental sheet transfer (1b) member being movable, and having a supplemental transfer surface (surface of member 1b) contactable with the one of the sheets (P) so that the one of the sheets (P) is transferred by the supplemental sheet transfer member (1b) wherein a tangential line of a boundary point of the transfer surface of the sheet transfer member from which boundary point the one of the sheets starts to separate away from the transfer surface of the sheet transfer members intersects with a tangential line of a boundary point of the supplemental transfer surface of the supplemental sheet transfer member from which boundary point the one of the sheets starts to separate away from the supplemental transfer surface of the supplemental sheet transfer member as seen in a view direction perpendicular to a thickness direction of the one of the sheets and a transferred

direction of the one of the sheets transferred by the sheet transfer member (see Figure 17).

Referring to claims 8,18 and 19. Kawasaki discloses an apparatus for handling sheets (Figure 17), further comprising a supplemental sheet transfer member (1b) being movable and having a supplemental transfer surface (surface of member 1b) contactable with the one of the sheets (P) so that the one of the sheets (P) is transferred by the supplemental sheet transfer member (1b), and first (1c) and second press members (1a) being opposed to the sheet transfer member (1d) and supplemental sheet transfer member (1b) respectively in such a manner that the one of the sheets (P) is allowed to be pressed between the sheet transfer member (1d) and the first press member (1c) in a first press direction (forward) and between the supplemental sheet transfer member (1b) and the second press member (1a) in a second press direction, wherein the first and second press directions intersect with each other as seen in a view direction perpendicular to a thickness direction of the one of the sheets and a transferred direction of the one of the sheets transferred by the sheet transfer member (see Figure 17).

Referring to claim 20. Kawasaki discloses an apparatus for handling sheets (Figure 17), wherein the sheet supporting surface area (4) is curved.

Referring to claim 9. Kawasaki discloses an apparatus for handling sheets (Figure 17), comprising:

a sheet transfer member being movable (1d), and having a transfer surface (surface of roller 1d) contactable with one of the sheets (P) so that the one of the sheets (P) is transferred by the sheet transfer member (1d),

a sheet supporting surface area (surface of member 4) being contactable with the one of the sheet (P) transferred by the sheet transfer member (1d),

an information reader (3; Figure 17) arranged to face to the one of the sheet (P) transferred by the sheet transfer member (1d) and having in an information reading range (range of sensor 3) including an information reading point (position of the sensor), in which reading range an information is securely readable from the one of the sheets (P; Figure 17),

a press member (1c) being opposed to the sheet transfer member (1d) in such a manner that the one of the sheets (P) is allowed to be pressed between the sheet transfer member (1d) and the press member (1c) at a boundary point (point between 1d and 1c) in a press direction (see sheet contact point; Figure 17),

wherein an imaginary straight line passing the boundary point (point between 1d and 1c) in a direction perpendicular to the press direction intersects the sheet supporting surface area (including 10a and 4) as seen in a view direction perpendicular to a thickness direction (see Figure 17) of the one of the sheets (P) and a transferred direction of the one of the sheets (P) transferred by the sheet transfer member (1d).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki in view of Henry (US 4,567,349).

Referring to claim 10. Kawasaki discloses an apparatus for handling sheets (Figure 17), comprising:

a press member (1c) being opposed to the sheet transfer member (1d) in such a manner that the one of the sheets (P) is allowed to be pressed between the sheet transfer member (1d) and the press member (1c), wherein the press member (1c) has a press surface contactable (outer surface of member 1c) with the one of the sheets (P) so that the one of the sheets (P) is allowed to be pressed between the press (outer surface of member 1c) and transfer surfaces (outer surface of member 1d).

in a manner that a tangential line of a boundary point (see Figure 17) of at least one of the press and transfer surfaces (1d and 1c) from which boundary point the one of the sheets (P) starts to separate away from the at least one of the press and transfer surfaces extends in the side area of the imaginary straight line (see Figure 17).

Kawasaki does not disclose the transfer rollers comprising different compression resistance surface rigidity.

Henry discloses an apparatus comprising transfer rollers comprising different compression resistance surface rigidity (see Figure 2-5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the teachings of Kawasaki to include a compression resistance surface rigidity of one of the press and transfer surfaces as being different from that of the other one of the press and transfer surfaces as taught by Henry because the rollers would provide a greater contact surface on the sheet.

Claims 14,16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki in view of Henry and further in view of Kako (US 2002/0060421 A1).

Referring to claims 14,16 and 21. Kawasaki in view of Henry disclose all claimed limitations of claim 14 however Kawasaki in view of Henry do not teach of information reader having a pair of input points opposed to each other.

Kako discloses a sheet handling apparatus (Figure 10) multiple information reader (304; Figure 10) input points are located on one side each other in such a manner that the input points face the side of the one of the sheet in a thickness direction of the one of the sheets to read the information through the input points.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the teachings of Kawasaki in view of Henry and Kako to include information reader having a pair of input points opposed to each other

because the size of the information reader can be reduced if some of the sensor readers were disposed in an opposed manner.

Claim 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki in view Rabb (US 3,276,425).

Referring to claim 24. Kawasaki discloses all claimed limitations of claim 24 however Kawasaki does not teach of a pneumatic blower for applying a pneumatic pressure to the one of the sheets.

Rabb discloses a sheet handling apparatus (Figure 1) wherein the a pneumatic blower (52; Figure 4) for applying a pneumatic pressure to the one of the sheets in such a manner that the one of the sheets is urged by the pneumatic pressure (Figure 4) to be pressed against the sheet supporting surface area(46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the teachings of Kawasaki to include pneumatic blower deflecting means to provide pneumatic pressure to on of the sheets as taught by Rabb because the pneumatic blower would assure the position of the sheet to be at a particular locations thus reading information would be made easier.

Allowable Subject Matter

The indicated allowability of claims 1,9,16,21 and 24 are withdrawn in view of the newly discovered reference(s) to Kawasaki and Kawasaki in view Rabb. Rejections based on the newly cited reference(s) are stated above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAKESH KUMAR whose telephone number is (571) 272-8314. The examiner can normally be reached on M-F 8 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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